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| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 10/790,388            | 03/01/2004  | Wolfgang Becker      | 3926.069            | 1106             |
| 30448                 | 7590        | 06/05/2006           |                     |                  |
| EXAMINER              |             |                      |                     |                  |
| ELVE, MARIA ALEXANDRA |             |                      |                     |                  |
| ART UNIT              |             | PAPER NUMBER         |                     |                  |
|                       |             | 1725                 |                     |                  |

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                   |               |
|------------------------------|-------------------|---------------|
| <b>Office Action Summary</b> | Application No.   | Applicant(s)  |
|                              | 10/790,388        | BECKER ET AL. |
|                              | Examiner          | Art Unit      |
|                              | M. Alexandra Elve | 1725          |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 7-16 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 7-16 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \*    c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/27/04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

**DETAILED ACTION**

***Specification***

The disclosure is objected to because of the following informalities: claim numbers (see paragraphs 0001, 0008) cannot be used in the specification because they may change during prosecution and thus the specification fails to meet the enablement requirement.

***Double Patenting***

Applicant is advised that should claim 11 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7, 9-10 & 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Xie et al. (USPN 6,608,278).

Xie et al. discloses lap welding of layered plates having high quality (porosity free) welds. An energy source (laser beam) is split into multiple beams and is used to weld the coated materials having a zero gap at the interface. The sheets may be coated with organic or inorganic coatings. Examples are steel sheet coated with zinc (on one or both sides). Individual laser spots are approximately 0.4mm in diameter. Welding trials were conducted using a beam focal length of about 150mm over a range of focus sizes (0-2 mm) and welding speeds for 5.2 to 7.1 m/min. (abstract, figure, col. 2, lines 6-67, col. 3, lines 1-41, col. 5, lines 5-15)

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al., as stated above and further in view of the following:

Although Xie et al. discloses the use of organic coatings, the use of plastic plates is not specifically taught.

The types of materials chosen are a choice in design and substitution of known equivalent structures may be made. *In re Kuhle* 188 USPQ 343 (CCPA 1958). Thus it

would have been obvious to one of ordinary skill in the art at the time of the invention to weld coated plastic sheet materials.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al., as stated in an above paragraph and further in view of Coyle, Jr. et al. (USPN 5,268,556).

Xie et al. does not teach scanning of the laser beam.

Coyle, Jr. et al. discloses a two step laser welding process in which the first step is to vaporize a portion of plating, such as gold plating on Kovar<sup>TM</sup> and thereafter using the same laser for making the weld. The laser beam scans the area of the coating to vaporize it. (abstract, col. 1, lines 63-68, col. 3, lines 18-31)

It would have been obvious to one of ordinary skill in the art at the time of the invention to scan the laser, as taught by Coyle, Jr. et al. in the Xie et al. process because ensures complete removal of the coating in the desired area.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al., as stated in an above paragraph and further in view of Mombo-Caristan (USPN 5,603,853).

Xie et al. does not teach spinning of the laser beam or a step seam.

Mombo-Caristan discloses the welding of two sheets using laser radiation. Figure 4 displays a step weld or lap weld. Figure 5D exhibits a weld trace whereby there is spinning of the laser beam. (abstract, figures, col. 6)

It would have been obvious to one of ordinary skill in the art at the time of the invention to create a step weld or use spinning of the laser beam as taught by Mombo-Caristan in the Xie et al. process because these are all drawn to welding and are merely variations of joint profiles and techniques.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 30, 2006.



M. Alexandra Elve  
Primary Examiner 1725